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### Voice • Visual • Data **Communications**

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#### Company Profile

- POPP.com is privately-owned.
- POPP.com is licensed by the Federal Communications Commission (FCC) and The Public Utilities Commission (PUC) in the states we serve.
- Our network includes a combination of the most advanced networks in the world. Successfully connecting billions of calls and serving thousands of businesses has provided us with broad experience and enormous buying power. As a result of our success, many network providers have established sales divisions whose goal is to sell network time to us!
- POPP.com Network Engineers install, configure, and maintain Class 4 Tandem Switching Centers, Class 5 Local Switch Centers, and an Internet Backbone Gateway.
- POPP.com people designed the software that drives our feature-rich POPP.com Billing System and do all of the company's data processing and database management.
- POPP.com serves customers in Minnesota, Colorado, and Arizona.
- POPP.com provides additional savings due to network efficiencies. As our call volume increases, we continue to install high-capacity facilities. Calls completed on our network are at a reduced cost to us, and we pass those savings onto you . As we continue to grow, we will continue to pass savings onto you. (Example: Long distance in 1981= 39\$ a minute, today = less than 7¢ a minute.) POPP.com supports many organizations that improve the quality of life for everyone in the communities we serve.







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#### POPP.com Main Office

620 Mendelssohn Avenue Golden Valley, MN 55427-4300

Telecom & Internet Networks - Phone Lines, T-1, DSL, Voice Mail, Long Distance, Internet

Service 24 x 7

763-797-7900 or 800-234-7677

Teleconferencing Information and Reservations

800-848-4851

Information

NetworkInfo@popp.com

Customer Service

NetworkService@popp.com

#### **TOSHIBA**

Service 24 x 7

763-797-7900

Information

TelephoneSysterninfo@popp.com

Customer Service

TelephoneSysternSewice@popp.com

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#### **ABOUT TDS** metrocom

Clearly different

As a member of the Telephone and Data Systems (TDS) family of companies, TDS Metrocom, a facilities based company, provides local, long-distance and high-speed Internet services to friends, neighbors and businesses in communities throughout Wisconsin, Illinois, Michigan, Minnesota and North Dakota.

Founded in 1969, Telephone and Data Systems, Inc. (TDS), is a national leader in the telecommunications industry. The TDS family of companies provide a full-range of voice and data services for both office and home. TDS has more than five million satisfied customers across 36 states and employs approximately 10,900 people nationwide.

#### **Employment**

#### **Community Involvement**

If you're looking for an exciting, competitive atmosphere where you can really shine - you've come to the right place! Click the link below to find out more about jobs within the TDS Family of Companies. see more

At TDS being a strong community partner is central to our mission and values. We want to help make your community a great place to continue to live and work. Contact TDS at the link below to make your charitable or sponsorship request. see more

#### **Investor Relations**

#### News

TDS, Inc. stock has been publicly traded on the American Stock Exchange under the symbol TDS since 1981. Choose the link below for more details. see more Get the scoop on TDS Metrocom's activities and involvement in our news section. Click the link below to be directed to our News and Events archive. see more

#### **Service Area**

#### Office Locations

TDS Metrocom provides service to communities throughout Wisconsin, Illinois, Michigan, Minnesota and North Dakota. see more

Local sales offices are located within the markets we serve. Select the link below to view a list of **our** sales offices. see more

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#### **Privacy Policy**

#### **Terms 8 Conditions**

At TDS, we take your privacy seriously. View our corporate privacy policy at the link below. see more

Select the link below to view the **TDS** Terms and Conditions of Service. see more

#### **Tariffs**

Click the link below to view tariff information see more



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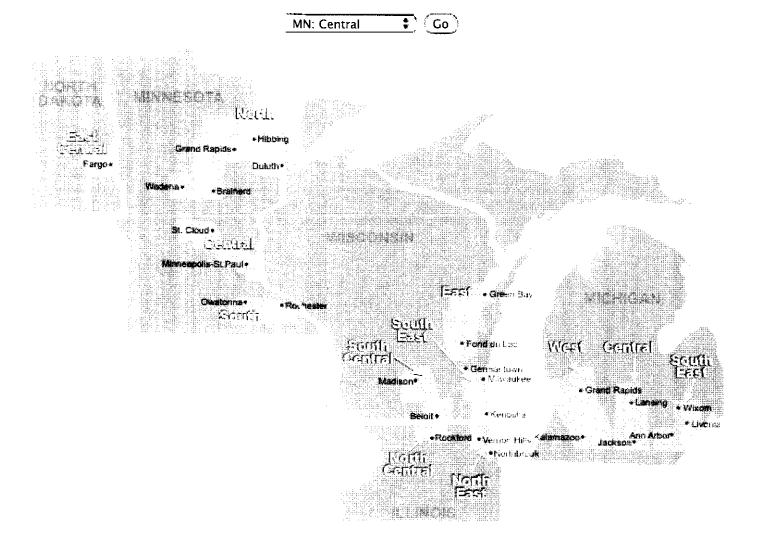
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#### **LOCATION** selector

Our products and services vary according to location. Please show us what area you're interested in by clicking in your region on the map below or selecting it from the drop-down menu.

#### Choose your service region:



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#### About Us

Telephone and Data Systems, inc.

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TDS Telecom

Suttle-Straus, Inc.

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#### **Our Companies**

Telephone and Data Systems, Inc. (TDS) is whole or part owner of several companies.



U.S. Cellular is the sixth largest U.S. wireless telecommunications provider, providing wireless telephone and data services to more than 5 million customers in four major regions of the United States. TDS owns 82 percent of U.S. Cellular, which is also traded on the American Stock Exchange under the ticker "USM." For more information on U.S. Cellular, go to <a href="https://www.uscellular.com">www.uscellular.com</a>.



TDS Telecom, a wholly owned subsidiary of TDS, is a telecommunications company offering choices for local, long-distance, broadband and entertainment solutions. The company serves rural and suburban communities in 30 states across the nation through its incumbent local exchange carrier (ILEC) business as well as through its competitive local exchange carrier (CLEC) business, which operates under the brand TDS Metrocom. For more information on TDS Telecom's ILEC business, go to <a href="https://www.tdstelecom.com">www.tdstelecom.com</a>.



**TDS Metrocom** is TDS Telecom's competitive local phone business, providing customers competitive choices for phone, data and Internet solutions in a five-state footprint in the Midwest. For more information on TDS Metrocom, go to www.tdsmetro.com.

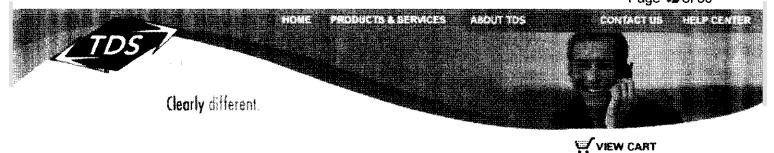


<u>Suttle-Straus, Inc.</u> is a full-service printing and communications company in Waunakee, Wis. that offers customers a wide range of services. TDS owns 80 percent of Suttle-Straus. For more information, go to <u>www.suttle-straus.com</u>.

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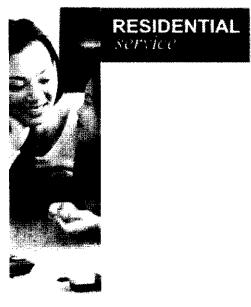
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# Packages Local Phone Long Distance Internet Calling Features Voice Mail Data/Transport Services



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#### nome

About XO

#### Our Story

Proven Leadership and

#### **Network Assets**

Customer centric

**Extensive Portfolio** 

#### **Our Story**

#### Overview

XO Communicationsis a full-service provider of communicationsservices for small & growing businesses. larger enterprises and carriers. XO® possesses a wealth of local fiber, DSL, fixed wireless, data networking. Internet and long-haul network assets that few. If any - U.S emerging service providers can match. In fact. XO is positioned as one of the only national, local end-to-end broadband Communications companies in U.S. That means we're about breadth. depth and execution on a national scale in the best local markets.

The XO® Story is unique because of:

- Proven Leadersh p and innovation
- Network Assets
- <u>Customer Centric Focus</u>
   <u>Extensive Product Portfolio</u>

This is one story you don't want to miss.



#### contact xo

Corporate Headquarters
1.703.547.2000
Contact us online

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Comptel: XO strengthens wholesale push

By Carol Wilson

Oct 9, 2006 12:31 PM

XO Communications added **two** more pieces to its wholesale puzzle today, announcing completion of the 18.000-mile <u>fiber optic network</u> and a business realignment that separates its wholesale operation from its sales to large enterprise customers.

The fiber optic network reaches 75 major metropolitan areas in the U.S. with 100 Gb/s capacity, and plans to upgrade that to 400 Gb/s, said Ernie Ortega, president of carrier services at XO.

"We have been selling on the network, and we are in the middle of provisioning the services we have already sold," Ortega said. "From what we have experienced so far, lighting the long-haul network opened up a part of the business we haven't had visibility into before."

New Internet applications such as video, the growth in demand for diversity in the light of consolidation and the rise of other markets including wireless backhaul have made this a good time for XO to launch its long-distance wholesale business, Ortega added.

**As** part of that effort, XO Communications has now reorganized into two units, XO Business Services and XO Carrier Services, in part to eliminate the perception that XO is competing with its wholesale customers.

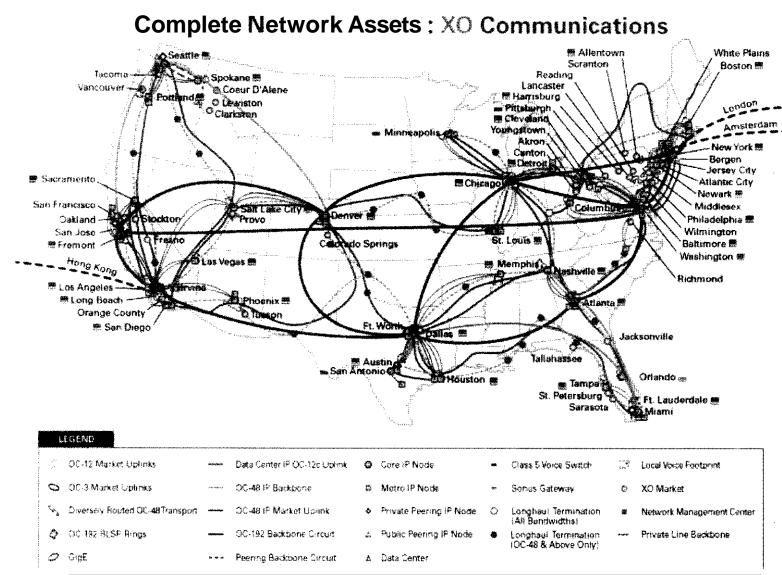
"We think this gives up more credibility," Ortega said. "What this allows us to do is focus on our market without drawing on any shared resources. We can align our processes and our decision-making in a way that is consistent with the market we are in."

In reality, most companies compete and partner at different times, he added, but eliminating the perception of a conflict is important.

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#### Complete Network Assets

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Local Services

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Wire Maintenance Plan

**Business Trunks** 

Centrex

Voice Messaging

**ISDN PRI** 

Directory Assistance and Operator Services

Private Switch/Automatic Location Identification (PSIALI)

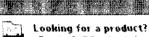
Remote Call Forwarding (RCF)

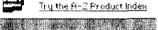
Foreign Exchange (FX)

**Local Volume Discounts** 

TeleBlock®







#### Overview

Your local voice services are probably your most heavily used communications services. Local services provide for everything from basic phone service to voice mail and directory assistance. Ai XO, reliability and competitive pricing backed with feature-rich offerings form the foundation for all of our local services. Whatever your local service needs, XO has them covered

Whether your business has one iocation in a single market or many offices across the nation. XO makes it simple for you to buy local Services. That's because XO offers standard product features across all of our markets. along with standard product names and functionality. Imagine that - local services available in over 70 markets nationwide from one supplier with one simple invoice

Your business needs	XO Product Solution	Product Description
Basic phone service with fax modem and other features	Basic Business Lines	Low-cost flexible telephone service that can be set up quickly without a great deal of technical enperiise
Manage and budget your telecom maintenance costs ior inside wiring and field technician service calls.	Wire Maintenance Plan	The XO® Wire Maintenance Plan offers you a diagnosis, by trained XO technicians of your inside wiring problem and any necessary repairs
Dedicated bandwidth to carry heavy voice traffic	Business Trunks	Trunks offer shared access from your PBX or Hybrid System to the Public Switched Telephone Network. Trunks can be analog or digital and can carry inbound, outbound or two-way traffic.
A turnkey solution for your voice services	Centrex	Fully managed service that offers PBX-like capabilities and standard feature sets, including three-way calling, forwarding and speed dialing along with productivity-enhancing optional features.
Flexible voicemail solution to take incoming calls when you are not available.	Voice Me ing	Lets businesses capture and manage important messages via standard, enhanced or advanced voicemail options
A high-capacity method of transmitting voice and data	ISDN PRI	ISDN PRI offers simultaneous, integrated voice and data transmission via a digital trunking interface.
Access to directory information	Directory Assistance and Operator Services	Directory Assistance connects to a live operator and offers nationwide traditional and reverse look-up capabilities. Operators Services offer a choice of live operator or



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auto-attendant assistance with calling cardicredit card third number billing collect calling person-to-person station-tostation busy line verification and busy line interrupt services

To ensure that specific employee or tenant location information rather than only the office or building address - can be transmitted to local emergency response officials

Private Switch/Automatic Location Identification (PS/ALI)

PS/ALI provides the E911 system with current specific employee or tenant location information to expedite emergency response times

To provide a local market presence in an area where the company does not have a physical location

Remote Call Forwarding (RCF)

Remote Call Forwarding is an inbound only call service that allows incoming calls to be fonvarded to a local or long distance telephone number providing a seamless view to the caller that the business is located within their local area.

Local telephone number(s) from an exchange (rate center) other than the exchange in which your location is physically situated

Foreign Exchange (FX)

With FX, multiple rate centers are being served from the same XO switching platform to maintain a local presence in a nearby area and increase customer accessibility

To combine expenses from all your locations and receive deep discounts on your local services

Local Volume **Discounts** 

Local Volume Discounts are beneficial for companies with large telecom expenses and multiple locations. For qualifying accounts, Local Volume Discounts can be paired with National Local . Services.

An automated solution TeleBlock® to help comply with slate and federal Do-Not-Call regulations

Available with XO Local and Long Distance services. TeleBlock® automatically screens and blocks outbound calls in real time against centrally administered federal. state, third party and proprietary **DNC lists** 

\* SERVICE AVAILABILITY, PRICES AND CHARGES VARY BY MARKET MINIMUM TERM COMMITMENT APPLIES

XOR VOICE SERVICES TERMS & CONDITIONS

#### See Also

- Service availability for Local Services
- Long Distance Service

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Products and Programs

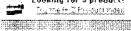
integrated Services

XOptions® Fisr

**XOptions®** 

XO One Managed Services XOptions® Consultant





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**BUSINESS SERVICES** CARRIER SERVICES PARTNERS CUSTOMERICARE ABOUT XC CONTACT XO

#### **XO®** Integrated Services

#### Overview

XO® integrated Services are designed to simplify the purchase of telecommunications. XOptions® bundles and XO Integrated Access packages encompass a bmad array of products that are available through XO. Translation: one point of Contact and one simplified invoice. XO Integrated Services are designed with all business sizes in mind. XO offers Rexibie package options with a number of voice minutes and data speeds so that your service can always grow with your business. whether you have one location or many

Your business needs	XO Product Solution	Product Description
A converged voice and data solution that utilizes your existing Private Branch Exchange (PBX) a id is Connected to a Primary Rate Interface (PRI) or Digital Trunk to take advantage of VoIP-enabled canabilities and features Critical Internet data and voice applications all on one invoice for one flat rate.	Flex Digital Trunks and ISDN- PRI Packages	A flat rate bundled VoIP Solution with ISDN-PRI or Digital Trunk connectivity that provides business customers with advanced features. functionality, and value for their voice and Internet services and delivers unlimited local calling and a generous number of long distance and loll-free minutes.* with Dedicated Internet Access and Web hosting over a single broadband connection
A converged voice and data solution that utilizes Business Lines to take advantage of VolP-enabled capabilities and features Critical Internet data and voice applications all on one invoice for one Rat rate*	XOptions® Flex: Business Line Packages	A flat rate bundled VoIP Solution with Business Line connectivity that provides business customers with advanced features, functionality, and value for their voice and Internet services and delivers unlimited local calling and a generous number of long distance and toll-free minutes: with Dedicated Internet Access and Web hosting over a single broadband connection
To find a company that will manage your telecommunications from installation of customer premise equipment to project managing the implementation of your network	XO One Managed Services	XO One Managed Services™ is an offering of bundled telecommunication and professional services that can be customized to help building tenants, mid-tier and larger companies increase the quality. reliability and return on investment of their integrated communication network

'Flat rates vary by location, 50.000-minute cap on long distance usage per location, per month, 5,000minute cap on toll-free usage per location, per month. Overage charges apply.

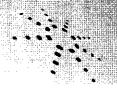
\*\* Fiat rate prices vary by location. Limits apply

#### See Also

- XOptions®
- XO® Dedicated Internet Access (DIA)

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TM

#### **Wireless Access for Communications Carriers**

Extending Your Network Reach

Carrier-grade reliability and network reach — that's what you get when you choose Nextlink" for your access and metro private line needs. Nextlink offers compelling alternative access solutions in comparison to the access offerings of the incumbent telephone companies. With solutions such as 10/100 Mbps Ethernet, DS-3 (45 Mbps). *OC-3* (155 Mbps) and OC-12 (622 Mbps), Nextlink offers carriers not only alternative access options to serve your customers, but also cost-effective ways to save on your own internal networking requirements

In addition, Nextlink helps to facilitate service continuity by enabling physically redundant broadband wireless network links. Timely provisioning and competitive Service Level Agreements complete the package, delivering the network availability and service that both you and your customers demand. Nextlink—economically extending your network reach for a competitive advantage.

#### The Nextlink Advantage

#### Licensed Spectrum

- Licensed wireless spectrum in 75 markets reduces the potential for signal interference from unlicensed spectrum users;
- The leading licensee of LMDS in the 28 –
   31 GHz spectrum, with spectrum holdings averaging almost 1 GHz per market.

#### Value

- Augments or replaces traditional voice and IP wireline services supplied by a Local Exchange Carrier ILECI;
- Delivers higher bandwidth than copper.
   along with lower costs when compared to building new fiber networks.

#### **Flexible**

- Facilitates the convergence of voice and data applications over a high-speed
   Ethernet-based infrastructure;
- Scalable to accommodate changing usage patterns as the need for high-speed Internet access increases.

#### Reliable

- End-to-end, fully managed Solution with 24 x 7 monitoring;
- Enables a physically redundant network infrastructure for service continuity.

#### Nextlink Wireless Access Bandwidth

Wireless Metro Private Line

Wireless Metro Ethernet

DS-3 (45 Mbps), OC-3 1155 Mbps), OC12 1622 Mbps)

Up to 100 Mbps

nextlink.com

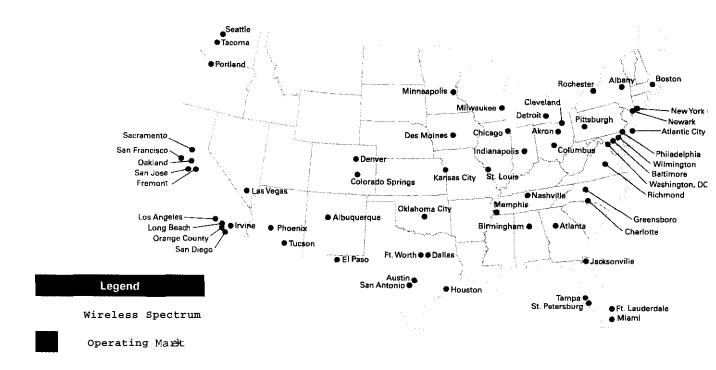
#### **Reliable Service**

#### **Established Provider**

Nextlink is one of the nation's leading licensees of LMDS and other fixed wireless spectrum, covering 75 markets across the United States. Nextiink delivers managed network services using microwave radio signals transmitted on a line-of-sight basis over distances up to seven miles. The company currentl operates in several major metropolitan areas and anticipates expanding its market presence to many more major U.S. cities by the end of 2008.

#### **Spectrum**

#### Nextlink™ Licensed Holdings



#### **Contact Us**

Find out more from your Nextlink representative at 800 549 1140

11111 Sunset Hills Road Reston, VA 20190

nextlink com

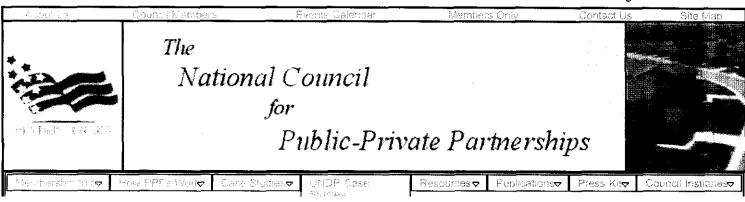
#### About Nextlink™

Nextlink, a subsidiary of XO Holdings. Inc., provides broadband wireless services to the wireless and wireline communications service provider, business and government markets. As one of the nation's largest holders of fixed wireless spectrum. Nextlink delivers high-quality, carrier-grade wireless access solutions that scale to meet the demands of today's converged world of communications—suppaning next-generation mobile and wireline voice, data and video applications. For additional information, visit www.nextlink.com

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## DECLARATION OF ROBERT H. BRIGHAM AND DAVID L. TEITZEL REGARDING THE STATUS OF COMPETITION IN THE MINNEAPOLIS-ST. PAUL, MINNESOTA METROPOLITAN STATISTICAL AREA

EXHIBIT 4
CONTAINS CONFIDENTIAL INFORMATION



#### CONNECTING MINNESOTA

home » case studies » connecting minnesota

1999 NCPPP Project Award Winner

Project Location: Minnesota (statewide application)

Public Sector Partner: Minnesota State Departments of Transportation & Administration

Contact Name: Adeel Lari. 651.282.6148

Private Sector Partner: ICS/UCN

#### PROJECT SUMMARY

Many areas of Greater Minnesota receive communications services via traditional copper wire or limited lower-capacity fiber-optic cabling. The current infrastructure does not meet the requirements for applying new and emerging technologies for transferring information between businesses, public agencies, educators, and citizens. Because the private sector is market driven, statewide communications services have become fragmented and highly uneven. Communications networks in Minnesota's urbanized areas are lucrative, highly sought after and well served. Conversely, rural towns and counties are underdeveloped and considered unprofitable by service providers. Most private sector companies will not consider investing beyond a minimum amount of infrastructure.

These unequal levels of service, along with Mn/DOT's goals for deploying Intelligent Transportation Systems, prompted Mn/DOT and the State Department of Administration to form an inter-agency partnership to develop a statewide telecommunications infrastructure in exchange for limited access to freeway rights-of-way. The result was a landmark agreement between ICS/UCN, a private sector developer, and Mn/DOT and the Department of Administration. In exchange for one-time access to Interstate highway rights-of-way, ICS/UCN is financing, building and maintaining a 5125 million fiber-optic backbone along some 2,000 miles of freeway and state highway, connecting rural and remote Minnesota to more urbanized areas of the state. In addition to meeting Mn/DOT's capacity needs, the partnership provides state and local governments access to 20 percent of network capacity for telecommunications use. The remaining 80 percent capacity will be available for lease to telephone companies, long-distance carriers, Internet service providers and other service providers.

Connecting Minnesota has set national precedence for procurement of telecommunications resources and capacity at no cost through leverage of access to public right-of-way assets. Not only are state and local units of government needs being met, but in doing so, 80 percent of Minnesota's population will be within 10 miles of the fiber-optic backbone. A potential eight out of ten citizens (3.6 million) could realize better telecommunications services at lower costs.

In an unregulated environment, and without the incentive offered by the state through Connecting Minnesota, private sector long-distance communications companies generally would not consider investing beyond a minimum amount of infrastructure, and would then only do so on the most financially lucrative routes. By offering one-time access to Minnesota's Interstate system to a private communications system developer, the state was able to leverage highly desirable routes in exchange for development of fiber-optic on less desirable routes, but routes that nevertheless are important to government and communities located near them. The value of the program is estimated at over \$125 million in private sector investment that meets both public and private sector needs, with an annual benefit to the state of at least \$5 million savings in current telecommunications costs-though immeasurable, life-cycle savings for the public sector and economic development benefits for rural Minnesota are clearly evident.

The National Council far Public-Private Partnerships | 1660 L Street, NW | Suite 510 | Washington, DC 20036 Phone: 202 467.6800 | Fax: 202.467.6312 | ncppp@ncppp.org

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# DECLARATION OF ROBERT H. BRIGHAM AND DAVID L. TEITZEL REGARDING THE STATUS OF COMPETITION IN THE MINNEAPOLIS-ST. PAUL, MINNESOTA METROPOLITAN STATISTICAL AREA

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# Wireless Substitution: Preliminary Data from the January-June 2006 National Health Interview Survey

by Stephen J. Blumberg, Ph.D., and Julian V. Luke, Division of Health Interview Statistics

Preliminary results from the January-June 2006 National Health Interview Survey (NHIS) indicate that the number of households with only wireless telephones continues to increase. During the first 6 months of 2006, one out of eight American homes did not have a landline telephone. Of those homes without a landline telephone, 84 percent had at least one working wireless telephone. These are the most up-to-date estimates available from the federal government concerning the size of this population.

The estimates are based on in-person interviews completed as part of the NHIS. This cross-sectional survey of the U.S. civilian noninstitutionalized population, conducted continuously throughout the year, is designed to collect information on health status, health-related behaviors, and health care utilization. The survey also includes information about household telephones and whether anyone in the household has a wireless telephone (also known as a cellular telephone, cell phone, or mobile phone). From January through June 2006, interviews were completed in 16,009 households. These households included 29,842 adults aged 18 years and over and 11,670 children aged 17 years or younger.

Brigham/Teitzel Declaration Exhibit 5 Minneapolis/St. Paul MSA Page 2 of 41

Microsoft PowerPoint 
Viewer

National Center for Health Statistics 3311 Toledo Road Hyattsville, MD 20782 (301) 458-4000

Toll Free Data Inquines 1-866-441-NCHS Because NHIS is conducted throughout the year and the sample is designed to yield a nationally representative sample each week, data can be analyzed quarterly. Weights are created for each calendar quarter of the NHIS sample. NHIS data weighting procedures have been described in more detail in an NCHS published report (Series Report Number 2, Volume 130). Because the estimates using the January-June 2006 data are being released prior to final data editing and final weighting, they should be considered preliminary and may differ slightly from estimates using the final data files.

Among the findings from the first 6 months of 2006, approximately 10.5 percent of households do not have a traditional landline telephone, but do have at least one wireless telephone. Approximately 9.6 percent of all adults—21 million adults—live in households with only wireless telephones; 8.6 percent of all children—more than 6 million children—live in households with only wireless telephones.

Two percent of households do not have any telephone service (wireless or landline). Approximately 4 million adults (1.8 percent) and 1.4 million children (1.9 percent) live in these households.

#### The results also reveal that:

- Nearly one-half of all adults living with unrelated roommates live in households with only wireless telephones (44.2 percent). This is the highest prevalence rate among the population subgroups examined.
- Adults renting their home (22.5 percent) are more likely than adults owning their home (5.1 percent) to be living in households with only wireless telephones.
- Among adults less than 25 years of age, more than 6 million live in households with only wireless telephones. Nearly one in four adults aged 18-24 years live in households with only wireless telephones (22.6 percent).
- The prevalence rate decreases as age increases: 12.5 percent for adults aged 25-44 years; 5.3 percent for adults aged 45-64 years; and 1.3 percent for adults aged 65 years or over.

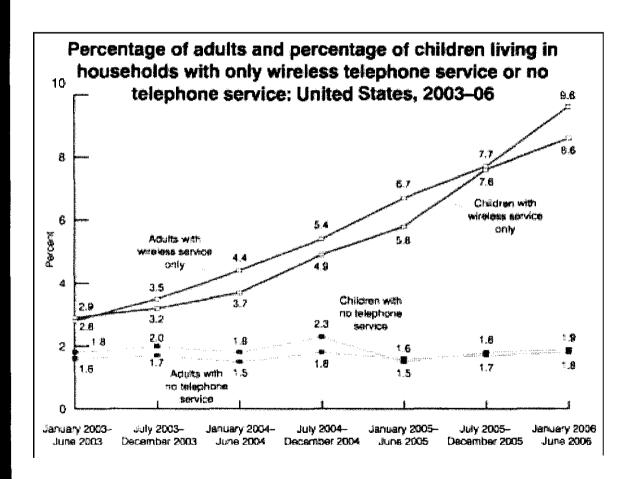
  Men (10.7 percent) are more likely than women (8.5 percent) to be living in households with only wireless telephones.
- Adults living in poverty (15.8 percent) are more likely than higher income adults to be living in households with only wireless telephones.
- Adults living in the South (11.4 percent) are more likely than

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adults living in the Northeast (7.2 percent), Midwest (10.2 percent), or West (7.8 percent) to be living in households with only wireless telephones.

Most major survey research organizations, including NCHS, do not include wireless telephone numbers when conducting random-digit-dial telephone surveys. Therefore, the inability to reach households with only wireless telephones (or with no telephone service) has potential implications for results from health surveys, political polls, and other research conducted using random-digit-dial telephone surveys. For more information about the potential implications for health surveys based on landline telephone interviews, see:

Blumberg SJ, Luke JV, Cynamon ML. Telephone coverage and health survey estimates: Evaluating the need for concern about wireless substitution. Am J Public Health 96:926-31. 2006.



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## ···TELEPHIA···

Your connection to the digital consumer

## MIDWESTERNERS CUT THE CORD: HOUSEHOLDS IN DETROIT AND MINNEAPOLIS-ST. PAUL HAVE THE HIGHEST RATE OF WIRELESS SUBSTITUTION AMONG 20 LARGEST U.S. CITIES, ACCORDING TO TELEPHIA

San Francisco Has the Lowest Substitution Rate

SAN FRANCISCO—October 18, 2006—More and more U.S. households are dropping their landlines and opting to go completely wireless. According to Telephia, the largest provider of consumer research to the communications and new media markets, households in Detroit and Minneapolis-St. Paul have the highest rate of wireless substitution among the 20 largest cities in the country. Detroit and Minneapolis-St. Paul posted household wireless substitution rates of 19 and 15.2 percent, respectively (see Table 1). The Tampa metropolitan area secured a 15.1 percent rate, representing nearly 177,000 households. Nearly 219,000 (14.3%) households in Atlanta and 220,000 (13.6%) households in Washington D.C. cut the cord. Rounding out the top 10 were Phoenix, Seattle, Denver, Boston and Los Angeles.

"Several factors influence the rate of wireless substitution across different metropolitan markets including income levels, ethnic mix, and average age," said Kanishka Agarwal, Telephia's VP of New Products. "Telephia provides wired and wireless service providers with the research they need to understand and track this important change in consumer behavior at the market level."

#### San Francisco: Tech Capital Holding onto Landline

San Francisco, which generally leads the nation in the adoption of many new technology products, landed at the bottom of the list. According to Telephia, the San Francisco metropolitan area posted just a 5.5 percent wireless substitution rate, which works out to be a little over 105,000 households.

"San Franciscans have traditionally been early adopters of advanced technologies. It is a bit of a surprise to see this metro much lower on the list, but this could be driven by the area's high income level or its relatively low level of mobile network quality," added Agarwal. "For topology and zoning reasons, mobile networks in San Francisco are not as reliable as compared to other top cities and it's a less attractive substitute."

Table 1: Wireless Substitution Rates for Largest U.S. Metropolitan Areas

Metropolitan Area	Total Households	Wireless Substitution Rate	Wireless Only Households
New York	6,988,000	6.5%	453,254
Los Angeles	5,374,491	9.8%	527,497
Chicago	2,751,090	8.3%	228,748

Philadelphia	2,309,987	7.4%	171,102
Boston	1,950,139	10.0%	194,962
San Francisco	1,903,708	5.5%	105,127
Dallas	1,694,764	8.0%	135,219
Washington. D.C.	1,613,508	13.6%	220,145
Houston	1,613,508	8.7%	140,821
Phoenix	1,543,860	13.5%	207,714
Atlanta, GA	1,532,252	14.3%	218,393
Detroit	1,474,213	19.0%	280,612
Seattle	1,288,485	13.2%	169,938
Tampa	1,172,405	15.1%	176,877
San Diego	1,102,757	9.6%	105,983
Cleveland	1,079,541	7.3%	78,287
Denver	1,056,326	11.3%	119,460
St. Louis	1,056,326	7.2%	76,090
Minneapolis	975,070	15.2%	148,254
Baltimore	858.990	5.8%	49,981

Source: Observed data from the Telephia Total Communications Survey (Q2 2006)

Note: Wireless substitution rates were determined through an online survey of 700+ households for each metropolitan area. National Health Interview Survey (NHIS) data was used to adjust for off-line households. Differences in wireless penetration rates between cities may not he statistically significant

Please join Telephia at the following industry events:

- The World Digital Publishing Conference and Expo (London October 26-27 ). For more information, visit: wan-press.org
- Digital Music Wire LA Games Conference (Los Angeles, **CA** November 7-8). For more information, visit: lagamesconference.com
- Informa Telecoms and Media Mobile TV Summit (New York, NY November 14-16) For more information, visit: informatm.com

#### **About Telephia**

Telephia is the largest provider of syndicated consumer research to the communications and new media markets. Telephia is your connection to the digital consumer.

Since 1998, executives at service providers, device manufacturers, content providers, and retailers have relied on Telephia data to make confident competitive strategy, marketing and resource allocation decisions. Telephia uses its unique measurement tools and large-scale consumer panels to completely understand the digital consumer's behavior, attitudes and experience.

To learn how Telephia data can help you understand the digital consumer and track your competitive performance, please contact us at (415) 395-0500 or sales@telephia.com.

